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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,503	11/02/2000	David J. Wetherall	41007.P004	8089
29127	7590	07/12/2005	EXAMINER	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			WILLETT, STEPHAN F	
			ART UNIT	PAPER NUMBER
			2142	

DATE MAILED: 07/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/706,503

Applicant(s)

WETHERALL ET AL.

Examiner

Stephan F. Willett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

PL

***DETAILED ACTION***

***Claim Rejections - 35 USC § 103***

1. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 5-15, 18-28, 31-41, 46-50, 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon with Patent Number 6,233,618 in view of Munger et al. with Patent Number 6,834,310.

4. Regarding claim(s) 1, 14, 27, Shannon teaches a network domain with routers to route traffic in and out, col. 6, lines 17-18, 23 and col. 13, lines 23-26 as “within network device” and “router or gateway to the Internet”. Shannon teaches monitoring network traffic at said router, col. 13, lines 26-28. Shannon teaches determining if sourcing of undesirable traffic occurs at the

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router, col. 13, lines 34-41 as “screen” and col. 11, lines 1-10. Shannon teaches a processor with memory, col. 5, lines 45-46. Shannon teaches denial of service attack or access, col. 14, lines 42-48. Shannon teaches the invention in the above claim(s) except for explicitly teaching recognizing denial of service attacks(DOSA). In that Shannon operates to limit data forwarded, the artisan would have looked to the network monitoring arts for details of implementing detailed traffic analysis of monitored data. In that art, Munger, a related network monitor, teaches “a hostile packet”, col. 29, line 32 in order to provide DOSA monitoring. Munger specifically teaches “saturating the receiver’s processor (a so-called ‘denial of service’ attack)”, col. 29, lines 37-38. Further, Munger suggests “traffic monitoring”, col. 18, lines 17 which will result from implementing his data recognition. The motivation to incorporate DOSA insures that more relevant data recognition is used to make a determination. Thus, it would have been obvious to one of ordinary skill in the art to incorporate DOSa recognition as taught in Munger into the monitor described in the Shannon patent because Shannon operates with recognizing data and Munger suggests that optimization can be obtained by recognizing DOSA. Therefore, by the above rational, the above claim(s) are rejected.

5. Regarding claim(s) 2, 15, 28, 41, 50, Shannon teaches said determination is based on differential characteristics of traffic routed out, col. 6, lines 45-46 as “access control is based on the categories or types of data to be accessed”, col. 8, lines 24-30, 49-51, and based on traffic routed into the network, col. 13, lines 1-22 as “source address field”.

6. Regarding claim(s) 5, 9, 13, 18, 22, 26, 31, 35, 39, Shannon teaches stopping undesirable traffic being sourced, col. 14, lines 29-20.

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7. Regarding claim(s) 6, 10, 19, 23, 32, 36, Shannon teaches a second routing device or network domain through which undesirable traffic is determined, col. 6, lines 1-3.
8. Regarding claim(s) 7-8, 11-12, 20-21, 24-25, 33-34, 37-38, Shannon teaches detecting undesirable traffic between routers and/or domains, col. 6, lines 6-7.
9. Regarding claim(s) 40, 49, Shannon teaches determining if sourcing of undesirable traffic/flow occurs at the router, col. 13, lines 34-41 as "screen" and col. 11, lines 1-10.
10. Regarding claim(s) 46, 48, 55, 57, Shannon teaches priority levels as groups/categories, col. 7, lines 41-42.
11. Regarding claim(s) 47, 56, Shannon teaches slowing traffic, col. 2, lines 65-66.

***Claim Rejections - 35 USC § 103***

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 1038 and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).
13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 3-4, 16-17, 29-30, 42-45, 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shannon with Patent Number 6,233,618 in view of Trcka et al. with Patent Number 6,453,345 and Munger et al. with Patent Number 6,834,310.

15. Regarding claim(s) 3, 16, 29, 42, 51, Shannon and Muger teach the system described above. Shannon and Munger teach the invention in the above claim(s) except for explicitly teaching compiling aggregated statistics of traffic data. In that Shannon and Munger operate to limit data forwarded, the artisan would have looked to the network monitoring arts for details of implementing detailed traffic analysis of monitored data. In that art, Trcka, a related network monitor, teaches "a window of time for enabling the bad packets to be evaluated", col. 6, lines 61-62 in order to provide a more accurate determination, as does Munger. Trcka specifically teaches "provid[ing] a temporary record of the good and bad packet data, respectively), and are used to enable the system to automatically monitor the traffic near real-time'", col. 14, lines 50-53 with "comparison", col. 19, lines 23-30 and "statistics", col. 21, line 26. Statistics relevant to all data sent is taught. Further, Trcka suggests "the system includes various components for automatically analyzing the network traffic in near real-time≡, col. 8, lines 64-65 which will result from implementing his data analysis. The motivation to incorporate statistics insures that more relevant data is used to make a determination. Thus, it would have been obvious to one of ordinary skill in the art to incorporate the differential statistics as taught in Trcka into the monitor described in the Shannon and Munger patents because Shannon and Munger operate with grouping data and Trcka suggests that optimization can be obtained with group statistics.

Therefore, by the above rational, the above claim(s) are rejected.

16. Regarding claims 4, 17, 30, Trcka teaches aggregating said input and output characteristics, col. 19, lines 25-27 as “evaluat[ing] the effectiveness of the firewall”. Thus, the above claim limitations are obvious in view of the combination.

17. Regarding claim 43-45, 52-54, the Shannon and Trcka patents disclose the method of the preceding claims. The Shannon and Trcka patents do not explicitly disclose all the details relating to specific types of statistics such as packet lengths, TTL, and inbound versus outbound packets,. However, Official Notice is taken MPEP 2144.03 (a)) that details relating to specific types of statistics is well known in the art to insure a complete data set. It would have been obvious to one of ordinary skill in the art at the time of the application's invention to provide details relating to specific types of statistics to obtain the advantages of having a complete data set. By the above rational, the claim is rejected.

### ***Response to Amendment***

1. The broad claim language used is interpreted on its face and based on this interpretation the claims have been rejected.

2. The limited structure claimed, without more functional language, reads on the references provided. Thus, Applicant's arguments can not be held as persuasive regarding patentability.

3. Based on the new grounds for rejection the applicants arguments are moot. The broad claim language used is interpreted on its face and based on this interpretation the claims have been rejected.



**Conclusion**

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is disclosed in the Notice of References Cited. A close review of the references is suggested. A close review of the Cunningham et al. reference with Patent Number 6,219,786 and Krishnan reference with Patent Number 6,366,956 is suggested. The other references cited teach numerous other ways to perform network device content control, thus a close review of them is suggested.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephan Willett whose telephone number is (571)272-3890. The examiner can normally be reached Monday through Friday from 8:00 AM to 6:00 PM.

1. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell, can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

5. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.



Stephan Willett

Patent Examiner

July 8, 2005